

**REMARKS**

The undersigned notes with appreciation that all rejections previously set forth in the case have been withdrawn. The Examiner has now cited a new reference (U.S. Patent 6,393,460 to Gruen), and has re-opened prosecution of the case, and rejected all claims based on Gruen or combinations of Gruen with other references. As noted above, entry of this amendment is in order as there were no amendments entered prior to appeal.

Claims 1 and 8 have been amended. Claims 9-10 and 16-17 have been canceled. The application. The application now includes claims 1, 3-8, 12-15, and 18-19.

With reference to Figures 2 and 3 of the application, it can be seen that multiple users 103 will input text 203. The text which is input will be processed 204, topic changes will be detected 205, and the messages will be classified 206. In a separate arm, the time messages are input will be logged 208. As noted at the bottom of page 6 of the application, if two messages appear only mildly related but are sent at disparate times, they are probably not related. A topic splitter 207 splits the messages 300 such that they are displayed in distinct ways such as in multiple windows 302, 303, and 304 and/or in different colors 305 and 306. Figure 3 highlights the concept of having different subgroups separately conducting messaging sessions simultaneously. In particular, in window 302 user 1 is corresponding with user 3, while in window 303 user 1 is corresponding with user 2. When the nature of a topic cannot be identified by the topic separator, notification is provided at block 360.

Rejections lodged under 35 U.S.C. 112, second paragraph

Claims 1 and 8 have been amended, and claim 10 has been canceled. In independent claims 1 and 8, the time synchronizer and time stamping remains recited as a claim element; however, it should now be clear that the automated topic separator considers time stamping when doing the topic separating along with other factors. As explained at the bottom of page 6 of the office action, messages that appear mildly related in terms of topic would not generally be considered related if they are separated by large amounts of time. Claim 10 has

been incorporated into claim 8. The claim now makes clear distinctions between a new window, a currently opened window, and a previously opened window.

In view of the above amendments, the rejections lodged under 35 U.S.C. 112, second paragraph should now be withdrawn.

#### Rejections based on Prior Art

Claims 1, 3, and 8-10 have been rejected as being anticipated by Gruen; claims 4, 5, 12, 16, and 17 have been rejected as being obvious over a combination of Gruen in view of U.S. Patent 6,557,027 to Cragun; claim 16 has been rejected as being obvious over a combination of Gruen, Cragun and U.S. Patent Publication 2001/0028364 to Fredell; claims 7, 13, and 15 have been rejected as being obvious over a combination of Gruen, Cragun and U.S. Patent 6,016,476 to Maes; and claim 14 has been rejected as being obvious over a combination of Gruen, Cragun, Maes, and Fredell. Each of these rejections are traversed in view of the amendments above and remarks below.

Independent claim 1 has been amended to include the substance of claim 16, and independent claim 8 has been amended to include the substance of claim 17. In particular, the independent claims are focused on a messaging system and method where an automated topic separator is employed which considers the messages and time stamping for separation purposes, and where a user interface is employed where parts of messages are represented in a distinct way (e.g., as in claim 8, there is a new window for new topics, a currently opened window for current topics, and a previously opened window for other topics which have been discussed previously—thus, for example, if a topic is changed to something that was previously discussed, then messages will appear in a previously opened window, and if a topic is not changed, messages will continue in the same window, and a new window will be opened only when a new topic is presented; alternatively, distinctiveness might also be displayed in different colors (see page 7, lines 18-25 where each of user 1's topics are in Red, while one of User 2's topics is in Red and the other is in Blue), AND subgroups of users are permitted to conduct messaging separately (see Figure 3 and page 7 of the patent application).

The concept of "user subgroups" is original because subgroups are created

and managed within the framework of a given on-line discussion. For example, suppose that this discussion is centered around the issue of upcoming plans for a computer company. There will be a number of topics discussed, and the transcript of the discussion will eventually be made available to the participants. However, this transcript will only contain information that participants are allowed to see. For example, a subgroup of users representing management could have their own windows corresponding to the same on-line discussion, in which they could discuss a particular topic (eg. "Mobile production plan" ), while remaining invisible to other people discussing the same topic. They could, for example, exchange information that other participants are not aware of. Then this subgroup of people receive the transcript of the on-line discussion, this transcript would show their windows/topics as well.

Such a multi-tier structure of the on-line discussion is original and it results in a compact transcript, where people will find the text, summarized by topics (depending on what they are allowed to see), and some windows/topics will not be accessible to them. With regard to Cragun (col 3, lines 51-59-referred to by the Examiner), it should be understood what Cragun is talking about is an ability of any group of users to create a chat (on-line discussion) using their chat server program. But this is very different from creating a single multi-tier discussion involving sub-groups. Gruen and Fredell (and all other references of record) do not make up for this deficiency. That is, Gruen shows an automated system which employs clustering techniques, and does not show automatic separation into subgroups; while Fredell is not related to an automated topic separation system (it is related to allowing collaborations to be conducted securely over a network) and therefore does not contemplate having subgroups of users viewing different messages.

Dependent claims 18 and 19 should also not be overlooked. Cragun describes a system for managing an on-line discussion. The users create topics, announce them, and make sure that every contribution to discussion is earmarked for one topic or sub-topic. This is 100% user-driven system. In contrast, Gruen describes a system "for informing users of subjects of discussion" (as its title says) in which the users are basically passive contributors to on-line discussion, and the system identifies topics in a fully automated way. Contrary to the Examiner's

conclusions, Gruen teaches having users contribute to the on-line discussion, but they do not interact with it in the same way users do in the present invention. In the claimed invention, the system is automatic and has interactive capability.

Central to the system that we propose is a concept of ambiguity. This concept is also discussed, to some extent, in Kanevsky, but in a different context. Kanevsky does not deal with situations where topics are intermixed in time. It only deals with situations where the text arrives in the "newsreel" format, i.e., a topic is opened, a text related to it arrives, and then the topic is closed. In contrast, the present invention deals with a much more complex situation where topics are never closed, and a person contributing to the on-line discussion may in fact be referring to the topic discussed "five topics ago". For example, the claimed invention is capable of producing categorization of the following type:

"I believe that the recent changes in the production plan of Netvista systems could negatively affect the demand for high end mobile devices"  
Here, the topic is either "Netvista production plan" or "Mobile roadmap" or "New topic", which clearly indicates the nature of ambiguity, and gives an opportunity to any of the users to intervene interactively and correct the ambiguity see box 360 on Figure 3. The user could indicate that the topic is either "Netvista production plan" or "Mobile roadmap" (if the user is sure that this is not a new topic), or even topic is "Netvista production plan" (if the user is positively sure that he knows the topic)

This structure of the system is original, and enables the users of the on-line discussion to enjoy the topic identification capabilities of an automated system, while at the same time maintaining the ability to correct and adjust the topical interpretation of the discussion by the system. Furthermore, such user interventions will have an impact on the topic identification algorithm, because it will greatly enhance its statistical power. In practice, the on-line part of the Gruen system (see top of Gruen, col 7) is probably impractical because in the initial phase of the on-line discussion there is simply not enough information to perform meaningful allocation of utterances by topics. Gruen ignores this issue and imposes a clustering algorithm that will allocate utterances by topics - but such an algorithm would likely be highly unreliable. In contrast, the approach of the present invention is based on users playing a strong role in "helping" the

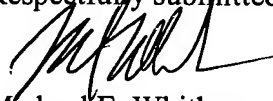
automated topic allocation algorithm in the initial phases of discussion (or when new topics are being introduced at a high rate), while letting the discussion flow to be handled mostly automatically in the later phases, where topics are basically established. This is a fundamentally new idea that cannot be simply obtained by merging Gruen and Cragun: the concept of ambiguity (partially resolved topics) is missing from both of these approaches. And it is unlikely that somebody would have looked at Kanevsky (or other references of record) for that, since (a) this methodology mostly applies to "newsreel" situation, and (b) it does not discuss the issue of partially resolved topics anyway - it only discusses the issue of "new topics that were not discussed before".

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1, 3-8, 12-15, and 18-19 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-0510 (IBM Yorktown).

Respectfully submitted,



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